Due Date: June 24, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Vahit H. Hacigumus et al.	Examiner:	To be assigned
Serial No.:	10/807,662	Group Art Unit:	To be assigned
Filed:	March 24, 2004	Docket:	SVL920030133US1
Title:	QUERY OPTIMIZATION IN ENCRYPTED DATABASE SYSTEMS		

CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 29, 2004.

By:_____

Name: George H. Gates

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We are transmitting herewith the attached:

☒ Transmittal sheet, in duplicate, containing a Certificate of Mailing under 37 CFR 1.8.
☒ Information Disclosure Statement and Form PTO-1449.
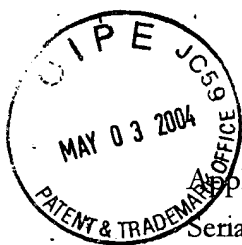☒ Cited Reference(s).
☒ Return postcard.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate.

Please charge all fees to Deposit Account No. 09-0460 of IBM Corporation, the assignee of the present application. A duplicate of this paper is enclosed.

<u>Customer Number 22462</u>

GATES & COOPER LLP
Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, CA 90045
(310) 641-8797

By:_____

Name: George H. Gates
Reg. No.: 33,500
GHG/amb

(PTO TRANSMITTAL - GENERAL)

(G&C 30571.295-US-I1)

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INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within 3-months of the filing date of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(d)(2), a copy of each document or other information listed on the enclosed Form 1449 is not provided because it was previously cited by or submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 10/449,421 filed on May 30, 2003.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to

1   G&C 30571.295-US-I1

establish that the reference(s) are not "prior art". Moreover, Applicants do not represent that a

reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions

of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as

being considered and initialed by the Examiner, to the undersigned with the next official
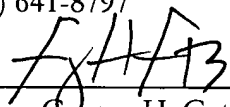
communication.

Please direct any response or inquiry to the below-signed attorney at (310) 641-8797.

Respectfully submitted,

GATES & COOPER LLP
Attorneys for Applicant(s)

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: <u>April 29, 2004</u>

By:_____
Name: George H. Gates
     Reg. No.: 33,500
     GHG/amb

Form 1449*	Docket Number: SVL920030133US1	Application Number: 10/807,662
INFORMATION DISCLOSURE STATEMENT	Applicant: Vahit H. Hacigumus et al.	
IN AN APPLICATION & TRADEMARK	Filing Date: March 24, 2004	Group Art Unit:: To be assigned

		U.S. PATENT DOCUMENTS – Copies of References **NOT** Required					
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	5,442,699	08/15/95	Arnold et al.				
	6,226,629	05/01/01	Cossock				
	6,275,824	08/14/01	O'Flaherty et al.				
	6,446,092	09/03/02	Sutter				
	US 2001/0019614 A1	09/06/01	Madoukh				
	US 2002/0038421 A1	03/28/02	Hamada				
	US 2002/0129260 A1	09/12/02	Benfield et al.				
	US 2002/0174355 A1	11/21/02	Rajasekaran et al.				
	US 2003/0055824 A1	03/20/03	Califano				
	US 2003/0061205 A1	03/27/03	Cleghorn et al.				
	US 2003/0123671 A1	07/03/03	He et al.				

			FOREIGN PATENTS				
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **Copies of References NOT Required**

		N. Ahituv et al., "Processing Encrypted Data", *Communications of the ACM*, 30(9) pp. 777-780, 1987.
		E. Brickell et al., "On Privacy Homomorphisms", *In Proc. Advances in Cryptology-Eurocrypt '87*, pp. 117-125, 1988.
		S. Chaudhuri, "An Overview of Query Optimization in Relational Systems", *In Proc. of ACM Symposium on Principles of Database Systems (PODS)*, pp.34-43, 1998.

EXAMINER:	DATE CONSIDERED:
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

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		S. Chaudhuri et al., "Including Group-By in Query Optimization", *In Proc. of VLDB*, pp. 354-366, 1994.
		R. Power, Computer Security Institute, "Computer Security Issues & Trends: 2002 CSI/FBI Computer Crime and Security Survey" 8(1) pp. http://www.gocsi.com, 2002.
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		ComputerWorld, "Business Process Outsourcing", 4pp., Jan. 01, 2001.
		U. Dayal, "Of nests and trees: A unified approach to processing queries that contain nested subqueries, aggregates, and quantifiers", *In Proc. of VLDB*, pp. 197-208, 1987.
		J. Domingo-Ferrer, "A new privacy homomorphism and applications", *Information Processing Letters*, 60(5):277-282, 1996 [7pp including cover/publication page]
		J. Domingo-Ferrer, " Multi-applications smart cards and encrypted data processing", Future Generation Computer Systems, 13:65-74, 1997, [preprint: 11/28/96 pp. 1-16]
		C. A. Galindo-Legaria et al., "Orthogonal optimization of subqueries and aggregation", *In Proc. of ACM SIGMOD*, pp. 369-374, 2001.
		H. Garcia-Molina et al., "Database Systems: The Complete Book" Prentice Hall, pp. 369-374, 2002.
		G. Graefe et al., "The EXODUS optimizer generator", *In Proc. of ACM SIGMOD*, pp. 160-172, 1987.

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		H. Hacigumus et al., "Executing SQL over Encrypted Data in Database Service Provider Model", *In Proc. of ACM SIGMOD*, pp. 216-227, 2002.
		H. Hacigumus et al., "Providing Database as a Service", *In Proc. of ICDE*, 10pp., 2002.
		W. Kim, "On optimizing an SQL-like nested query", *ACM Transactions on Database Systems (TODS)*, 7(3):443-469, 1982.
		M. Muralikrishna, "Optimization and dataflow algorithms for nested tree queries", *In Proc. of VLDB*, pp. 77-85, 1989.
		R. L. Rivest et al., "On Data Banks and Privacy Homomorphisms", *In Foundations of Secure Computation*, pp. 169-177, 1978.
		D. R. Stinson, "Cryptography: Theory and Practice", CRC Press, pp. 114-125 (plus title/publication page), 1995.
		TPC-H. Benchmark Specification, Revision 2.1.0, http://www.tpc.org/tech, pp. 1-145.
		P. Wayner, "Translucent Databases", Flyzone Press, 10pp, 2002.
		N. R. Wagner, et al., "Encrypted Database Design: Specialized Approaches," IEEE, pp. 148-153, 1986.

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